

--	--	--	--	--	--	--	--	--	--

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 3, 2017/2018

HPT2021 INTRODUCTION TO HUMAN PATHOLOGY

(All Sections / Groups)

6 JUNE 2018
2.30 p.m. - 4.30 p.m.
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This Question paper consists of 3 pages including cover page with **FIVE** questions only.
2. Attempt **ALL** the questions. All questions carry equal marks and the distribution of the marks for each question is given.
3. Please write all your answers in the Answer Booklet provided.

QUESTION 1

- (a) What is the difference between hypoxia and ischemia? Can you think of a situation in which there might be hypoxia without ischemia? [3 marks]
- (b) List SIX major causes of cell injury. [3 marks]
- (c) What happens to the cell membrane in necrosis vs apoptosis? [2 marks]
- (d) A 22-year-old construction worker sticks himself with a sharp, rusty nail. Within 24 hours, the wound has enlarged to become a 1-cm sore that drains thick, purulent material. This skin wound illustrates which of the morphologic types of necrosis? [1 mark]
- (e) A 43-year-old man has complained of mild burning substernal pain following meals for the past 3 years. Upper GI endoscopy is performed and biopsies are taken of an erythematous area of the lower esophageal mucosa 3 cm above the gastroesophageal junction. There is no mass lesion, no ulceration, and no hemorrhage noted. The biopsies show the presence of columnar epithelium with goblet cells. Which mucosal alteration is most likely represented by these findings? [1 mark]

QUESTION 2

- (a) What are the TWO main goals of acute inflammation? [1 mark]
- (b) What are the FIVE cardinal signs of inflammation? In normal terminology and scientific terminology. [2 marks]
- (c) Name FOUR principal causes of acute inflammation. [2 marks]
- (d) Cutaneous wound healing is the process by which the skin repairs itself after damage. It is important in restoring normal function to the tissue. What are the TWO main types of healing? When do they take place? [2 marks]
- (e) There are a number of factors to take into consideration when waiting for a wound to heal. Describe at least THREE factors that determine how long it will take for a patient to fully recover from a wound of any type, superficial or deep. [3 marks]

Continued...

QUESTION 3

- (a) Edema is swelling or puffiness of parts of the body. Edema usually happens in the feet, ankles, and legs. It also can affect the face and hands. Pregnant women and older adults often get edema, but it can happen to anyone. What are the causes of edema? Name FOUR. [2 marks]
- (b) It's the last day of your scuba dive trip to Sipadan Island and someone just saw a hammerhead shark on the morning dive. You have time to make the afternoon dive boat to go look for it before your flight in the midnight. You want to go since you have never seen a hammerhead shark. Is this a wise decision? What could be the complications? How does it develop? [3 marks]
- (c) Distinguish between primary and opportunistic pathogens and identify ONE specific example of each. [2 marks]
- (d) What is the difference between infectious disease, communicable disease, and contagious disease? [3 marks]

QUESTION 4

- (a) Name THREE common household toxins. Describe the sources and the harmful effects of the toxins. [6 marks]
- (b) One in three people in the world suffer from micronutrient deficiency and may not even know it. What are the most common micronutrient deficiencies and their health impact? Describe at least FOUR. [4 marks]

QUESTION 5

- (a) What are inborn errors of metabolism? Give FOUR examples. [3 marks]
- (b) List THREE ways that cancer cells differ from normal cells. [3 marks]
- (c) Distinguish the terms: Anaphylaxis, Prophylaxis, Hypersensitivity, Autoimmune disease. [4 marks]

End of Page